WHAT IS CLAIMED IS:

1. A method for mixing wetable powder mixtures comprising:

injecting a wetable powder through a hollow inner nozzle of an automatically adjusting annular jet mixer, and

pumping mix water into a upstream area provided in the automatically adjusting annular jet mixer between the inner nozzle and a hollow housing within which the inner nozzle axially moves so that the upstream area is pressurized and causes the inner nozzle to move relative to a housing of the mixer until the opposing forces exerted on the inner nozzle by the pressurized upstream area and an pressure regulated area that is pressurized at a regulated pressure are balanced and thereby adjusts the nozzle opening formed jointly by a tapered section of the inner nozzle and a inwardly tapered section of the housing so that high mixing energy is maintained to effectively wet the wetable powder with the supply water as the supply water exits the nozzle opening at all mixing rates.

2. A method for mixing wetable powder mixtures according to claim 1 wherein the injecting a wetable powder is guar gum.

3. A method for mixing wetable powder mixtures comprising:

injecting a wetable powder through a hollow inner nozzle of an automatically adjusting annular jet mixer, and

pumping mix water into a upstream area provided in the automatically adjusting annular jet mixer between the inner nozzle and a hollow housing within which the inner nozzle axially moves, so that the upstream area is pressurized,

maintaining a regulated pressure on an pressure regulated area provided in the automatically adjusting annular jet mixer thereby causing the inner nozzle to move relative to a housing of the mixer until the opposing forces exerted on the inner nozzle by the pressurized upstream area and the pressurized pressure regulated area are balanced and thereby adjusting the nozzle opening formed jointly by a tapered section of the inner nozzle and a inwardly tapered section of the housing so that high mixing energy is maintained to effectively wet the wetable powder with the supply

water as the supply water exits the nozzle opening at all mixing rates.

4. A method for mixing wetable powder mixtures according to claim 3 wherein the injecting a wetable powder is guar gum.

5. A method for mixing wetable powder mixtures comprising:

injecting a wetable powder through a hollow inner nozzle of an automatically adjusting annular jet mixer, and

pumping mix water into a upstream area provided in the automatically adjusting annular jet mixer between the inner nozzle and a hollow housing within which the inner nozzle axially moves, so that the upstream area is pressurized,

maintaining a regulated pressure on a pressure regulated area provided in the automatically adjusting annular jet mixer,

allowing the inner nozzle to move relative to a housing of the mixer until the opposing forces exerted on the inner nozzle by the pressurized upstream area and the pressurized pressure regulated

area are balanced and thereby adjusting the nozzle opening formed jointly by a tapered section of the inner nozzle and a inwardly tapered section of the housing so that high mixing energy is maintained to effectively wet the wetable powder with the supply water as the supply water exits the nozzle opening at all mixing rates.

6. A method for mixing wetable powder mixtures according to claim 5 wherein the injecting a wetable powder is guar gum.